

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: rcmorris@mars.ark.com (ray)  
Subject: --loose tube bases--  
Message-ID: <199602131727.JAA26933@mars.ark.com>

Greetings all,

Sent another message with more info about "half size" Sky buddy but it didn't get posted. I'll try again on another vein. Li'l while ago a chap asked about repairing loose tube bases, a tech friend of mine came up with the following: He'd recommend using either JB WELD epoxy cement or LOCTITE COLDWELD epoxy. Both of which have excellent high heat characteristics. Both products also have versions rated at much higher temp's.

Before applying the cement, clean the juncture of the glass with a cotton swab moistened with methyl hydrate or isopropyl alcohol.

After GE RTV silicon rubber is fully cured, it has an excellent insulating properties against conduction of both heat and voltage.

I enjoy the BA forum. 73.

VE7FBJ: Ray. (rcmorris@mars.ark.com)

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: k1oik@ccsnet.com  
Subject: 6146  
Message-ID: <TCPSMTP.16.2.12.-15.49.46.2644608140.3214232@ccsnet.com>

I have 6146's for sale.  
Any interest?

Burt Fisher  
K10IK  
=====  
<http://www.ccsnet.com>  
<telnet://ccsnet.com>  
Cape Cod's Internet Address  
=====

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: k1oik@ccsnet.com  
Subject: 6146  
Message-ID: <TCPSMTP.16.2.13.6.40.24.2644608140.3218288@ccsnet.com>

70>How much? NOS or used? Which 6146's...."A", "B", "W"?

70>Sandy W5TVW

Obviously I did not do well in my posting.

I am not sure of the fair price of the 6146's

They are three Sylvania 6146B

Two EL-Menco 6146 B, they look new. What does NOS mean?

I will look at offers and accept the best one that is reasonable.

I would like to ship all 5 to one person.

Can someone who is NOT interested in buying tell me what a fair price is?

Burt Fisher

K10IK

=====

<http://www.ccsnet.com>

<telnet://ccsnet.com>

Cape Cod's Internet Address

=====

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996

From: Felix Barreras <chonte@mailhost.nmt.edu>

Subject: Re: 6146

Message-ID: <Pine.SUN.3.91.960213075516.15050B-100000@black>

Hello Burt

\$5.00 per 6146

\$9.00 per 6146B & W

If I were looking for some this is what I would offer, but don,t need them just now. You are about 6 years too late. Sold my HW101 a long time ago, one of my bigger mistakes.

73 de Felix

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996

From: x90galbraith1@wmich.edu

Subject: 75A2 and Ranger questions...

Message-ID: <Pine.PMDF.3.91.960213014334.677787314A-100000@wmich.edu>

Gang,

I was home for the weekend and had the time to pull out my fav' rigs to set up. Here's a couple q's about some things I'm going to work out (next time)...

(1) The Ranger has insufficient gain in the speech amp/driver. With a known good source (D104, Cardax), even with the mic gain full, the mod current will \*barely\* kick up a few mA from the 60mA idle current. I checked all the voltages and resistances from the mic input up through the 1614s and all was right on the money. Any suggestions b'for I break out the scope for some more serious snooping?

(2) The 75A2 makes an extremely loud 'pop' (from the speaker) when switched from standby to operate. The loudness of the 'pop' is not affected by the volume control. I remember hearing that this problem was fixed in the A3, but have no idea how it was remedied...maybe a capacitor from the switch contact to ground? If anyone could compare A2 and A3 schematics? Or if I could get a copy of an A3 schematic and compare ;)

Anyhow, it sure was nice to finally get these rigs out of storage and get them ready to fly. I had a center fed Zep up, fed to the Matchbox and rigs and heard quite a few \*big\* AM signals on 75m all weekend. Hope to join the ranks soon!

73, Chris KA8WFC

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996

From: List Admin/Owner BoatAnchor Mail List <listown@jackatak.theporch.com>

Subject: ADMINISTRIVIA: Requests go to LISTPROC

Message-ID: <9602122201.aa21867@jackatak.theporch.com>

Gang-

This is VERY frustrating for me...

Every time we post about a new file or an update being made available on the BoatAnchor archives, we also post \*explicit\* instructions for how to retrieve those files...

The correct address is:

listproc@theporch.com

DO NOT, UNDER \*ANY\* CIRCUMSTANCES SEND REQUESTS OR ADMINISTRATIVE  
REQUESTS TO ANY ADDRESS EXCEPT:

listproc@theporch.com

In the future, \*ANY\* requests sent to the list as a whole will be  
considered as proof-positive of terminal inability to read and  
understand simple instructions... and will be dealt with harshly...

I \*HATE\* doing this, so show me you really can read, and follow the  
instructions... PLEASE....

--

73

Jack, W4PPT/Mobile (75M SSB 2-letter WAS #1657/#1789 -- both all mobile! ;^)

- - - BoatAnchor Mailing List Archiver/Owner - - -

listtown@jackatak.theporch.com ---- firebot1@jackatak.theporch.com

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996

From: roecker.greg@ist.vf.mmc.com

Subject: AFN Bosnia

Message-ID: <Chameleon.960213075839.greg@acc.vf.mmc.com>

Good Morning from Atlanta!!

I enjoyed reading about the signal reports from the Ft. Mead AM  
station on 1670 last week. Since I haven't heard it lately, I  
guess it went QRT and headed for true DX land . . . anyway,  
on my ride to work yesterday morning, a local Atlanta radio  
station did a live on the air interview with an Army "DJ" from  
Tusila (sp?) Bosnia . . . he had just assembled the station,  
and they were on the air in Bosnia. He didn't say what  
frequency they were on, but the "DJ" discribed the "studio" as  
a "big mil van on the back of a Ford F350 . . . his operating  
space was about 5ft by 6ft . . . and they were playing  
everything from country western, jazz, rock, and classical . .  
. . . oh yeh, the "DJ" was a reservist, and was from a country  
and western station 104 something, in southern Georgia . . .  
his tour was going to be on a 6 month rotation . . . .

Anyway, just to let you know, the station is up and on the air,  
and providing a morale boost to the guys overseas . . .

73 from Atlanta

Greg  
N4OSJ

-----  
Greg Roecker  
E-mail: roecker.greg@ist.vf.mmc.com  
From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: "Barry L. Ornitz" <u856010@eastman.com>  
Subject: Antique Wireless Association Spring Meet  
Message-ID: <Pine.ULT.3.91.960212170728.17928A-100000@dua150.kpt.emn.com>

The 20th Anniversary "Spring Meet in the Carolinas" of the Antique Wireless Association will be held March 22 and 23, 1996 in Charlotte, NC. The event includes trading of antique radios and related items, equipment contests, vendors, informative programs, and an auction.

A full description of the meet including directions, hotel information, the BBQ dinner and auction Friday night, the ladies tour and the schedule of the technical presentations on Saturday is available from the file server on Phil's system. To have this file mailed directly to you, follow the directions below. [PLEASE FOLLOW DIRECTIONS, Jack says it will be my head if you don't!]

Send the following email message:

To: listproc@theporch.com  
Subject: {leave this line blank}

Include the following as the message text:

get boatanchors AWA.Meet.Charlotte

Send the message. Do not send anything else and do NOT send requests to the Boatanchor List. Note which words are capitalized. Within an hour or so, you should get back a mail message from the listprocessor containing this file.

I have not personally attended one of these meets but I have friends who have been in the past. They say it is a great event, although it is much smaller than a typical hamfest.

73, Barry WA4VZQ ornitz@eastman.com

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: lakeith@wrdis01.robins.af.mil (Larry Keith)  
Subject: BC-221 Remnant

Message-ID: <199602130101.TAA23766@wrdis01.robins.af.mil>

Was someone looking for a BC-221 junker? If so, e-mail me.

73,

Larry, KQ4BY

lakeith@robins.af.mil

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996

From: hagelin@magi.com (Richard Brisson)

Subject: Bulbs for Enigma

Message-ID: <199602122314.SAA20350@infoweb.magi.com>

After my post of a couple of weeks ago, Jerry Proc raised the issue about the battery being 4.5 volts and the bulbs being 3.5 volts. I contacted a number of Enigma experts and have not been able to get anywhere ... until today thanks to Vlad Dvorkin who sent me some information from a book on radio equipment of the 3rd Reich:

" Incandescent lights used in the coding machine comply with the following specifications:

hemispherical, 12 millimeters, 3.5 volts, 0.2 amperes, acid-free soldering, base-nickel plated

There are twelve spare bulbs on a strip of metal located at the upper edge of the wooden cover. Commercial torch batteries with a diameter of 12 millimeters may be used in emergencies."

" Battery 4.5 KZT 5 must be used in the machine. Such batteries may be obtained from the Ordnance Depot, where they are held in storage. In the event that no usable batteries are available, connect into any power source (flashlight battery, storage battery and the like) using the thumbscrews provided. Care must be taken to ensure that the power source has a maximum voltage of 4 volts."

Ragnar Otterstad is to check into the availability of such bulbs at his place of business in Denmark. However, if anyone knows of any other sources here in North America, I would be most appreciative in obtaining that info.

Thanks to the above boatanchorites (and all those who sent me follow-up email),

Richard.

P.S. Does a bulb qualify as firebottle ? :-)

Jack Ingram, the curator at the National Cryptologic Museum, also expressed interest in finding a good source for these bulbs.

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Collector of Crypto and IFF Gear  
and almost anything with rotors or A,B,C,D,E,...,X,Y,Z on it !  
HAGELIN GRETAG HEBERN KLEINSCHMIDT ENIGMA KRYHA GEHEIMSCHRIBER  
M-94 M-209 ROCKEX TYPEX CRYPTO AG TELETYPE Corp  
Richard Brisson hagelin@magi.com  
-----

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: pbock@melpar.esys.com (Paul H. Bock)  
Subject: CDAA (aka "Wullenweber")  
Message-ID: <9602131419.AA14059@syseng1.se.melpar.esys.com>

>Doesn't the FCC use Wullenweber (sp?) antennas for their DF'ing?

The FCC Laurel (MD) monitoring station reportedly had (has?) a "mini-Wullenweber," or, more correctly, a "circularly-disposed antenna array" (CDAA), which is the proper nomenclature. The FCC antenna was originally a developmental model build by the Naval Research Lab, as the story was told to me. And yes, they did use it for DFing on interferers/pirates, etc. I'm not sure whether or not the Laurel facility is still in operation; I visited it once during the late '70s as part of an SBE (Society of Broadcast Engineers) tour group, but it was at night and we didn't get to see the antenna field.

Regarding the CDAA: Originally developed by the Germans during WWII, the typical CDAA used a goniometer to "sweep" around the array. Many arrays consisted of two sets of vertical elements (low-band and high-band) backed by a reflecting screen. They were used for many things, but primarily they were intended for accurate HF DF. Some systems could reportedly accurately DF on short-duration signals by using compressive receiving techniques.

The last word I had was that they were all being dismantled - overtaken by modern communications/satellite technology, no doubt.

73,

Paul, K4MSG

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: "Ray L. Mote" <rmote@rain.org>  
Subject: Re: Clandestine Radios (O.S.S. SSTR-1)  
Message-ID: <Pine.SUN.3.91.960213022927.9747M-100000@coyote.rain.org>

Thanks for the info on the number of SSTR-1 sets produced. Wish I had those kinds of details. Keith Melton's book CLANDESTINE WARFARE: WEAPONS AND EQUIPMENT OF THE SOE AND OSS, has a fair amount of information on that subject. Gary Cain (W8MFL), P.O. Box 521, Shakopee, MN 55379 provided me with a videotape of all three O.S.S. training films on the SSTR-1. I have one of these beasts, acquired via a friend from the estate of an ex-O.S.S. type (I assume) up in Ojai, CA. That is, I have the transmitter, receiver, and power supply. Sure would like to get a copy of the tuning chart for the transmitter case lid!

I've been contemplating firing it up for either Field Day or Straight Key Night, but procrastination gets me every time. Maybe that's a good thing, else the FCC might get me for harmonics instead!

73.....Ray Mote, W6RIC <rmote@rain.org>

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: Michael.J.Knudsen@att.com  
Subject: Re: Clandestine Radios, American  
Message-ID: <9602131644.AA11260@bock.ih.att.com>

Hi. I had three SSR-1s that I got from the son of Meissner's lead engineer at a massive garage sale. I traded two of 'em for a nice R392, but still have one more. Very nice little two-band superhet with 6 loktal tubes -- runs on 6V AC/DC filament and anywhere from 70 to 300 VDC plate. Has a BFO too. Impressive sensitivity.

As for rarity? Well, 350 units isn't a lot compared even to PRO-310 or SP600-JX21A or classic Breting rx or <your favorite rare set here>. And I'd expect most of them to have stayed in the foreign countries they were dropped or otherwise smuggled into. When the spy left the area or blended back into native life and his term of duty was up, I doubt s/he tried to sneak the radio back out into the Free World. Most likely it went off a bridge one foggy night. Not something the spy would want in the closet as a souvenir.

It's a micracle any are out and about. I suspect those were never, uh, delivered or used, but were surplused out of a warehouse.



BTW, I heard the SSR-1 was used mostly by our partisans in -- Yuogslavia!  
Maybe our Govt would like to re-activate their reserve status...  
73, mike k w9nrd/ae

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: BHall88620@aol.com  
Subject: Collins / Rockwell  
Message-ID: <960212175716\_320107974@emout06.mail.aol.com>

>Has Collins been totally absorbed by Rockwell? Have they moved out of  
>Cedar Rapids? I need an address or phone number of same. I'm going to  
>try to get some manuals from them for non-avionics gear.

As far as I know, Collins is part of Rockwell but still maintains the Collins  
name. Something like Collins Radio Company, a division of Rockwell  
International is their official name.

I'll look thru my benefit paperwork where I think I have an address of  
Collins somewhere in it (don't know about a phone #), and I'll see if anyone  
around work (Rockwell Space Operations Co.) knows.

73,  
Ben  
---  
BHall88620@aol.com

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: "Raymond Perrin (613) 736-2234" <ray@pwgsc.gc.ca>  
Subject: Collins Filters  
Message-ID: <96Feb13.124643est.29706@gorgon.pwgsc.gc.ca>

When searching for a 500 Hz mechanical filter for my 75S-3B, I tracked down  
Collins Filter Products Division at 714-641-5315 / 641-5311. Collins can still  
provide them, but at a quoted price of over \$800, I decided to pass.

Ray Perrin, VE3FN  
ray@pwgsc.gc.ca

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: Sandy Blaize <70401.134@compuserve.com>  
Subject: DEBEG/Siemens parts needed  
Message-ID: <960213162339\_70401.134\_IHD101-1@CompuServe.COM>

I'll try this one here, might be productive. Looking for parts for a 1970 BA ex-ship's receiver.

Need one or all of the following filter modules for:

DEBEG Model 7201 receiver (ESB allwellen empfangen)  
[Identical to Siemens Model E-410 receiver.]

Part number	Description
=====	=====
S42045-E51-A1	LSB filter module.
S42045-E52-B1	LSB filter module.
S42045-E50-A1	75 Hz. Filter module.
S42045-E129-A1	6 Khz. filter module.

"Most needed" is the LSB filter. (Either one) These were commercial receivers where USB is the "rule" and LSB is not normally used. Therefore, they were usually supplied less that option! (Grrrrrrrr!)

73,

Sandy W5TVW

~~~~~  
Boat Anchors collected, restored, modified and used!

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: "Michael Hanz" <hanzm@ncr.disa.mil>  
Subject: Elephant cages, et al  
Message-ID: <9601128241.AA824157200@ncr.disa.mil>

Ah yes, the Wullenweber! Fielded by the Germans in WWII. Having been the poor sucker in charge of constructing two at NRS Sugar Grove WVA (only place in the world with two, as far as I know) and trying to maintain a salt drenched version in the Canal Zone for a couple of idyllic years, I suspect they probably would be considered the ultimate BA antenna. Four concentric circles, outer ring of 120 vertical sleeve antennas for the high band up to about 30mHz; second ring a grounded reflector screen; third ring a circle of 40 vertically folded wire dipoles for the low HF band, peeking over the high band ground screen; inner ring a 90' tall reflector screen of grounded vertical wires for same. About a thousand feet in diameter overall, if memory serves me, with a welded ground plane out a zillion miles. Used 3" diameter armored submarine coax cable from EACH element to a center blockhouse, all cut to within a centimeter of the same length...yep, large snaking pits required to permanently store the shorter "as the crow flies" runs. The submarine cable was

used because it was stable with temperature changes...the length was critical to maintain a constant phase relationship (and resulting beam direction). As I recall, we used an eight output multicoupler for each high band element. Eight of the elements were combined in a phasing unit (called a beam former...really just a bunch of delay lines to cause the eight outputs to be additive in phase) to give you a fairly tight directional beam, at least on the high band, broader on the low band. For DF work {the official NSG mission statement advised that this is intended for air/sea rescue purposes}, all the beams were fed into a continually spinning goniometer, which scanned the beams and fed the outputs into the receivers, along with beam pointing information. Maintaining the big goniometers was a real pain, according to the techs. Oh, and lots of R-390s, guys... If you have a lot of land and a couple of mill burning a hole in your pocket, you too can have one!

I'm waiting for a FLR-9 to go to salvage, where I can buy it for \$150.00...'Course, the associated demolition work may be more than I'm willing to take on. The contractor at Sugar Grove left 320 tons of brass buried in concrete beneath the center blockhouse of one antenna because we wouldn't let him use any dynamite, but that's another story...

Probably more than you wanted to know...

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: k1zat@bah.com  
Subject: Re: Elephant cages, et al  
Message-ID: <Pine.SUN.3.91.960212145745.26141D-1000000@booz.bah.com>

Mike --

On Mon, 12 Feb 1996, Michael Hanz wrote:

> I'm waiting for a FLR-9 to go to salvage, where I can buy it for  
> \$150.00...'Course, the associated demolition work may be more than

Yea, me too, but I bet we could get a millllion or so from a lottery before a Flare Nine comes up in salvage..

When I was inventoring property for the AF property records, no one had a "real price" for each component in the FLR9. So the logistics guys at the depot decided that they would take count of all that they had or knew about, and divide that into the system cost. Hence, every piece of FLR9 component cost 30K each according to the system.

>snake pits

The one at Clark AB PI was a real good one for snakes, those little suckers that could just barely hit you and you're gone in a few minutes.

jd

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: dt@scotborders.co.uk (David Topham - Arts & Science)  
Subject: Elephant cages, et al. Earliest BA?  
Message-ID: <9602131506.AB18035@scotborders.co.uk>

Michael Hanz said (of the FLR-9):

- > ultimate BA antenna. Four concentric circles, outer ring of 120
- > vertical sleeve antennas for the high band up to about 30MHz; second
- > ring a grounded reflector screen; third ring a circle of 40.....

Here in the UK, way before the FLR-9 at RAF Chicksands -

First an annular ditch was dug enclosing an area 300 feet in diameter, the soil and chalk being banked 6 feet high on the inside of the ditch. Immediately inside the bank and running right round the interior were dug 56 pits about 3 feet wide and of the same depth. This was around 2400bc. 650 years later, at around 1750bc, work began on a double circle of bluestones erected within the bank, but this work was abandoned and almost immediately the familiar massive 40 ton Sarsen uprights linked by lintels were erected, with the 5 huge trilithons placed in a horseshoe shape within. 500 years later the 5 ton bluestones from Wales reappeared as a further concentric circle within the complex.

Early BA technology? By definition Stonehenge was several orders of magnitude larger and heavier than strictly required for its purpose as an astronomical direction finder and clock....

...and the FLR-9 at Chicksands is (or at least used to be?) a similarly impressive sight on the skyline.

73, David Topham GM3WKB dt@artscience.scotborders.co.uk

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: "Edward J. Zeranski" <ejz@nosc.mil>  
Subject: Re: Elephant cages, et al. Earliest BA?

Message-ID: <9602131542.AA27909@manta.nosc.mil>

At 09:08 2/13/96 -0600, you wrote:

>Michael Hanz said (of the FLR-9):

>

>> ultimate BA antenna. Four concentric circles, outer ring of 120

>> vertical sleeve antennas for the high band up to about 30MHz; second

>> ring a grounded reflector screen; third ring a circle of 40.....

>

>

>Here in the UK, way before the FLR-9 at RAF Chicksands -

Is Chicksands still operating? I thought it was on the cut list.

>Early BA technology? By definition Stonehenge was several orders of

>magnitude larger and heavier than strictly required for its purpose as an

>astronomical direction finder and clock....

You HAVE made a discovery!!! The back-up battery was found in the pyramids!>

>...and the FLR-9 at Chicksands is (or at least used to be?) a similarly  
>impressive sight on the skyline.

>

>73, David Topham GM3WKB dt@artscience.scotborders.co.uk

>

>

>

Ed Zeranski ejz@marlin.nosc.mil, work

ezeran@powergrid.electricti.com, home

Wooden Boats, Tube Receivers, Rusty Old Trucks, The Good Stuff!

This is a private opinion or statement and is nobody's fault but mine. No person, employer, or govt. should try to take credit for it!

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996

From: "Cal J. Eustaquio" <ceustaqu@violin.aix.calpoly.edu>

Subject: Fellow BA'r, AD6Y

Message-ID: <Pine.A32.3.91.960212211115.74570B-100000@violin.aix.calpoly.edu>

My good friend, Howard Krinsky, AD6Y, underwent some serious back surgery. For those of you who have been following Howard to this point, he is doing fine. We spent the better part of an hour discussing BA equipment in his recovery room at Sierra Vista Hospital in San Luis

Obispo, CA. He is recovering and should be able to make some of the CA ham fests this coming year after his recovery. He should be coming up back on the net also. 73's. Cal.

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: Francis4/Apple@eworld.com  
Subject: Forward from wrecked.radio.swamp  
Message-ID: <960213093307\_24868418@hp1.online.apple.com>

Subject: FS: Classic HF AM CW gear  
From: <BAACK@MAINE.MAINE.EDU>  
From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: "Gary H. Harmon, Jr." <gharmon@txdirect.net>  
Subject: FS: Heathkits  
Message-ID: <199602130208.UAA08164@legend.txdirect.net>

I traded for 2 nice Heathkit HF transcievers. One is a SB-100 and the other a SB-101. I have done some repairs but some remains to be done. Both are complete, work to a degree, and have AC supplies and speakers. No manuals or mikes. Asking \$125 per set. Will pay half the shipping. For more details, please send me a personal email.

Also have a collector's quality IB-2A impedance bridge for \$45.

Thanks and 73, GARY.....

=====  
<<<<<<<< T00 many projects, NOT enough time! >>>>>>>>

Gary H. Harmon, Jr., K5JWK gharmon@txdirect.net  
6302 Robin Forest K5JWK@K3WGF.STX.USA.NOAM  
San Antonio, TX 78239 (210) 657-1549

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: Radiomatt@aol.com  
Subject: Fwd: CDAA (aka "Wullenweber")  
Message-ID: <960213112508\_320805877@mail02.mail.aol.com>

-----  
Forwarded message:  
Subj: Re: CDAA (aka "Wullenweber")  
From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: rdkeys@csemail.cropsci.ncsu.edu  
Subject: Re: Fwd: CDAA (aka "Wullenweber")

Message-ID: <9602131750.AA110969@csemail.cropsci.ncsu.edu>

> As I understand it a goniometer is a sort of repeater coil antenna.

I have never heard it called that before.....

A goniometer is a phasing coupler for coupling directional antenna systems to a detector using phase amplitude. It was designed by the Messers Bellini and Tosi about 1906 and used in their directional spark receiving systems. There were apparently several stations in Western Europe that used such phasing to preferentially receive spark telegraphy messages. Point to point or point to ship transmissions could be made. The direction of the receiving station could be obtained, and a primitive directional fix could be had from the combined bearings of two stations.

Their original antenna system was a pair of verticals in one plane and another pair 90 degrees transverse to the first. That 90 degree angle is important. The antennas were a half wave apart and a half wave in height.

Later, they combined the antennas by folding the ends into a common center mast, in essence an open loop. But, the center mast was itself used as a radiator (it was used as a half wave vertical with proper loading to resonance to compensate for length). If a center vertical was used, the system was unidirectional. If the center vertical was not used then the array was bidirectional.

>From each of the four legs of the antenna system, came the four feedlines which were attached to coils in pairs. The 180 degree antennae were attached to the ends of one coil and the 90 and 270 degree antennae were connected to the ends of a second coil. The two coils were set 90 degrees turned from each other (remember the 90 degree angle from the antenna relationships).

To get a signal into the detector (a crystal receiver) the primary was connected to a third coil that was placed within the two antenna coils and which could be rotated 360 degrees and to which a scale was attached. The scale had the direction of desired reception. The rotation of the coil changed the phase amplitude of the signals received in the primary of the detector.

The assembly of the three coils on a wooden frame or in a box about a foot square was the goniometer.

In principle, the goniometer can be used to couple to any kind of phased array antenna system. For each antenna pair in the system one coil is used. For four antennas two coils are used. For eight

antennas, four coils are used, etc.

If the antennas are bidirectional, then the thing steers a 180 degree swing and there is a mirror image in the other 180 degree swing. If the antennas are unidirectional, then a full 360 degree swing of the array is obtained.

The Adcock arrays used in airline HF direction systems used a goniometer to obtain the direction.

Commercial ship DF systems of the 50's and earlier used the same basic goniometer system.

The DF systems one sees in the movies when spies or partisans or enemy subs are being located, all work on basically the same system.

Nowadays, it is mostly a thing of the past. But, it can be adapted rather easily if one has the real estate and a big enough tower to put up sloping half waves on 80 meters or 40 meters and tune them in the same way. Commercial goniometers are scarce as hen's teeth, tho. Goniometers of any sort are scarce, for that matter.....

#### REFERENCES

I don't have the original Bellini and Tosi articles handy, but they are mentioned in the Electrician, about 1910 or so, if my memory is not failing me. A good general reference is:

1. Duncan, R.L. and C.E. Drew. 1931. Radio Telegraphy and Telephony. 2nd Ed. New York, John Wiley & Sons, Inc., pp. 844-846.  
(See their diagram for an illustration of a system using a bidirectional antenna setup.)

A good description of Marconi's adaption of Bellini and Tosi's system is:

2. Bucher, E.E. 1917. Practical Wireless Telegraphy. 2nd Ed. New York, Wireless Press, Inc., pp. 255-263.  
(See their figure 272 for a good likeness of what Bellini and Tosi's original goniometer looked like, and figure 275 for a schematic of Marconi's adaption of Bellini and Tosi's antenna system.)

Some additional information on early direction finding systems is in:

3. Loomis, M.T. 1925. Radio Theory and Operating. Washington, D.C., Loomis Publishing Co., pp. 717-745.



From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: Jake Hellbach <kk5hy@accesscom.net>  
Subject: globe scout deluxe  
Message-ID: <199602131212.GAA21772@uro.theporch.com>

Hi,  
I am trying to restore a scout deluxe and am in need of the manual, if anyone has one that a copy (of course I would pay costs) could be sent to me it would be greatly appreciated.

Thanks in advance,  
Jake KK5HY

+++++  
Email via: kk5hy@accesscom.net  
AMI #832  
Check out the Westside ARC Web page at:  
<http://www.accesscom.net/~kk5hy>  
Now updated with boatanchor links  
+++++

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: WalterLP@aol.com  
Subject: help ID an OLD receiver  
Message-ID: <960212184823\_142398494@emout09.mail.aol.com>

Back in the late 60's I acquired a receiver that was old THEN. It has no nameplate or panel ID. It's probably National, since it has the classic HRO dial, but does not have the plug in coil arrangement. Instead, it has a complex and remarkable sliding casting that is gear operated, and slides horizontally across the entire width of the rec. This casting contains all the coils for the various bands. It's incredible!

It uses metal octal tubes, and came with it's own speaker that did not have a permanent magnet. Rather, it fed the B+ through an electromagnetic coil on the speaker, which doubled as the filter choke. It also uses a "magic eye" tube as a tuning/signal strength indicator. It has black crackle finish, and probably was repainted somewhere along the line, hence, no decals. It is NOT homebrew.

I'd love to know the history on this classic boatanchor, and it's ID.  
In all the years I've had it, no one has ever seen anything like it.

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: merrigan@ee.ualberta.ca

Subject: Re: help ID an OLD receiver

Message-ID: <199602130002.SAA08587@uro.theporch.com>

In <960212184823\_142398494@emout09.mail.aol.com>, on 02/12/96 at 05:49 PM,

WalterLP@aol.com said:

> I'd love to know the history on this classic boatanchor, and it's  
> ID.

> In all the years I've had it, no one has ever seen anything like it.

Sounds like you have one of the NC-100 series. If you can tell me how many tubes it has, we can narrow it down.

--

-----  
merrigan@nyquist.ee.ualberta.ca

University of Alberta

Edmonton, Alberta  
-----

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996

From: Henry van Cleef <vancleef@bga.com>

Subject: Re: help ID an OLD receiver

Message-ID: <199602130319.VAA29246@zoom.bga.com>

As WalterLP@aol.com said

>

> Back in the late 60's I acquired a receiver that was old THEN. It has no  
> nameplate or panel ID. It's probably National, since it has the classic HRO  
> dial, but does not have the plug in coil arrangement. Instead, it has a  
> complex and remarkable sliding casting that is gear operated, and slides  
> horizontally across the entire width of the rec. This casting contains all  
> the coils for the various bands. It's incredible!

> It uses metal octal tubes, and came with it's own speaker that did not  
> have a permanent magnet. Rather, it fed the B+ through an electromagnetic  
> coil on the speaker, which doubled as the filter choke. It also uses a  
> "magic eye" tube as a tuning/signal strength indicator. It has black crackle  
> finish, and probably was repainted somewhere along the line, hence, no  
> decals. It is NOT homebrew.

The radio you are describing is very definitely a National, most probably an NC-100 type. These were made in a variety of mechanical configurations, and either in a general coverage or ham band only (NC101) configuration. Moore "Communications Receivers" covers several of the variations. The particular set you have (with tuning eye) would be an early set. I know of one NC-100 that had 6-pin tubes rather than

octals, although Moore does not list the configuration, and I suspect that there are other variations not shown there, but there is enough information for you to pin down your set reasonably well. Also, some of the older Nationals were made without any panel markings.

The NC-200 is built on the same mechanical lines, but with a few more frills inside and in cabinet details. Best known are the postwar NC-2-40 sets. The sliding coil tray is the signature of James Millen and Phil Eyrick (who actually did the production design), and was not, so far as I know, used by anyone else in a production set. Millen did build a few prototypes ca. 1950 using this design, but they were never put in production.

The B+ speaker field filter is a very standard layout for the 1930-48 period.

You've got a really superior radio there. Put it back in top shape and use it.

--

\*\*\*\*\*  
Hank van Cleef vancleef@bga.com vancleef@tmn.com  
\*\*\*\*\*

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: n5tvr@w5ddl.aara.org  
Subject: Library Loan of TM Manuals  
Message-ID: <297376@w5ddl.aara.org>

I was turned on to this process by Dr. Richard Bingham at Fort Monmouth. Ask your local liberrian if you can participate in the inter-library loan program. If the answer is yes, then just drop off the TM number with the library and wait 14 days. You will get your hot hands on just about whatever TM you may want to browse, copy, etc. (except keep).

Sort of a try it program. In my town, we can do it by phone.

73 de tom

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: rdkeys@csemail.cropsci.ncsu.edu  
Subject: Looking for TCM-2/TCN-1 info, schematics, manuals  
Message-ID: <9602131631.AA110882@csemail.cropsci.ncsu.edu>

Fellow Boatanchorites and ol' navy transmitter buffs.....

I had the wrong number on the beastie..... My head on backwards (:+}}.....  
It is not a TBM but a TCM..... oh, well, so much for thinking without  
having the beast in my lap.....(:+}}..... (....better be leavin' it on the  
deck rather than in the lap, else they be a' scrapin' me off de deck).

The unit is a Model TCM-2/TCN-1 Radio Transmitter (General Electric  
Company GE-52206). It is a transmitter unit and a power supply  
unit about 39 inches tall, 18 inches deep and 24 inches wide on each  
unit, and it runs an 803 as the final for about 125 watts output.  
It weighs in at about 200 lbs or so for each unit.

I need to scare up a copy of the manual or at least schematics for it  
to get it restored to operational, and, if anyone has an original running  
spare MG set that will work with it, I would like to run it Field Day 96  
in a special demonstration station set up on the fantail of a museum ship,  
here, for some public relations effect, and an operational display. That's  
puttin' de ol' BA hardware to use, one more time.....(:+}}.....  
We will have several special event operational Navy stations from the  
WWII era, and Friday night before FD be passing traffic and doing a  
special event run from the afternoon until 11pm when we have to vacate  
the ship. Wat a fun way to usher in FD 96 --- wagglin' de ol' brass  
monkey on a real boatanchor aboard a real boat.....!

So, any leads or info or pointers are appreciated.

Thanks Bob Keys/NA4G rdkeys@csemail.cropsci.ncsu.edu

p.s. I challenge all other Boatanchorites to have working BA's as part  
of your FD operation. It can be done, and done well, on CW.

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: mail08458@pop.net (Bryan)  
Subject: Need parts/tools source for R-390A  
Message-ID: <QQacrq17750.199602130443@alterdial.UU.NET>

Can anyone recommend a good source for the following R390A components:

- 1) Bristo wrench (No. 8 fluted socket wrench). Used to remove knobs and  
gears (cringe!).
- 2) CM328 lamps.
- 3) 3TF7 ballast tubes. ARS wants \$32/ea., Fair Radio \$17.50/ea.

4) UG-572/U, UG-573/U, UG-970/U, and UG-971 connectors/adapters.

5) Original style meters.

Thanks.

Bryan Stephens  
mail08458@pop.net

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: dsnowden@ccd.harris.com (Doug Snowden)  
Subject: Preliminary Moving Sale  
Message-ID: <9602131421.AA107298@rs2.ccd.harris.com>

2 each Hallicrafters HA1 TO Keyers. One works fine and looks fine, the other I purchased as a parts unit and haven't plugged in, but probably has a bad tube. It is more worn than the first unit. \$50 + split ship.

Drake RV-3 remote vfo guts. I say guts because this is the PT0 + chassis that was removed from the P/S. No tubes, but works when tubed. Front panel good. \$20 + split ship.

1 ea 4PR1000 (pulse rated 4-1000) used, slight discoloration, offer ?

2 ea 4-1000 tubes, lots of discoloration, offer ?

1 ea 3-500Z tube, slight discoloration, offer ?

3 ea 3-500Z tube sockets, 2 used, one new, \$10.00 ea + split ship.

More to come, as I clean the garage.

Doug, N4IJ dsnowden@ccd.harris.com

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: "Ray L. Mote" <rmote@rain.org>  
Subject: Re: R-392 Extender Cables  
Message-ID: <Pine.SUN.3.91.960213024455.97470-100000@coyote.rain.org>

I checked the manual for the types of connectors needed:

|                   |                                          |
|-------------------|------------------------------------------|
| Cable #1A (coax)  | Amphenol 82-831 & 82-830 push-on type    |
| Cable #2 (20-pin) | Amphenol 26-806 & 26-807                 |
| Cable #3 (9-pin)  | Amphenol 26-012 & 26-013 blue hexagonal  |
| Cable #4 (7-pin)  | Amphenol 26-1059 & 16-192 blue hexagonal |

Found the blue hexagonal connectors under the WPI (Wire Pro Inc.) name in both the Newark and Allied Electronics catalogs for around \$6 just for the male & female plug bodies. They'd changed the part numbers to use a "126-" prefix instead of the earlier "26-", but they look the same. No luck on the others; will advise if I find 'em as I know there are other R-392 folks who'll need the info.

Thanks, Randy Zelick. Yes, I finally looked in the maintenance part of the manual where it says to remove all the lower deck modules as a unit and plug 'em back into the receiver. Looks like all I need is one of my BNC patch cords for that one piece of coax, to make that trick work. Sure hope I don't need to pull any of the modules off that assembly, though!

73.....Ray Mote, W6RIC <rmote@rain.org>

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: jeffa@ix.netcom.com (Jeff Anderson)  
Subject: Re: R-392 module extender cables?  
Message-ID: <199602131338.FAA25066@ix5.ix.netcom.com>

You can actually disassemble an R392 and connect the modules without using extension cables, although they would make the task much easier. As I type, on my bench is my disassembled R392 (Dubrow Electronics Industries, order # 52713-PP-61). It took a bit of work to lay it out, but it's possible.

On the bench, the modules are laid out, left to right:

```

Xtal Osc - RF - Chassis w/VFO - IF (tucked under chassis)
                    |
                    |
                Front Panel

```

Oh, and the chassis w/VFO still attached is on its side, with the VFO facing left.

Cabling is tight, but it's working for me. There may be other configurations possible. Disassembly, although at first daunting, isn't really that difficult. Just follow the instructions in the manual.

- Jeff, WA6AHL

P.S.

1. The manual copy purchased from Fair Radio does not have the several pages describing the extension cables.

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: Michael.J.Knudsen@att.com  
Subject: RAK-7 VLF Navy RX  
Message-ID: <9602122154.AA10686@bock.ih.att.com>

Didn't get much done this past Saturday -- a local from the BA List dropped by in his low-rider van. After we each grabbed a handle on the RAK-7 inside and lowered it to my driveway tarmac, the van rode normally again :-) The separate PS is an easy one-man job, tho inside it doesn't look like it.

I pulled the hedge-clipper extension cord out of the garage and we got her fired up right on the driveway, as the locals jogging and cycling by stared at the two Russian (Serbian?) spies with the funny radio.

Anyway, I now have this beast in the basement. It's a WW-II Navy RX tuning 15 to 600 KC in 6 bands. Regenerative detector preceded by two RF stages, with a trimmer control on each RF stage so you can align as you go. Very effective. Since 1960 I've wanted a good VLF set, and now I get to play with a commercial regen detector.

The dials just read 0 - 1000 so I don't have her calibrated yet, tho my URM-25 and old HP Nixie counter can work on it. Dials are sort of like the R-66, this being an RCA product.

But so far I've logged a couple VLF stations below 100 KC -- an FSK signal around 40 KC and a sort of slow, sloppy CW around 70 KC. Maybe K9TA and the other VLF hounds can help me ID this stuff once I get the freqs nailed down.

This is NOT a BA rx -- it is a SHIP ANCHOR RX! Everything is at least twice as big as it needs to be. "Rugged" doesn't begin to describe it. The bandswitch uses huge ceramic wafers that belong in a KW TX. The tuning drive could run a windup Victrola. But at least the CW note doesn't wobble when I shake it!

The "autodyne" detector is unusual, and of interest to regen homebrewers. It uses a 6D6 pentode just like the RF stages. These early pentodes had a separate suppressor grid connection. The RCA engineers used this tube like a pentagrid converter, putting highly regulated +90 VDC on the suppressor grid to serve

as the regen-oscillator plate. Audio output is taken from the actual plate at +200 V.

The tickler coil is in the cathode circuit and is fixed coupling (in a rig this big & rugged, how about a variable link coupling? Oh well). Regen is controlled by a pot in the screen grid between ground and the +90. The regulated "plate" on the suppressor keeps the regen very stable (so saith the manual) and immune to audio plate load impedance variations.

Performance is outstanding, at least before the RF tank opened up (?) The RAK-7 is amazingly unfazed by the usual light-dimmer noise on my Sloper longwire. My area has several weak AM stations from 530 to 620 that I use to test BC-band performance, and the RAK sucks 'em right up, once you learn to control bandwidth with the regen control. Aircraft beacons do fine, as does the 100-KC LORAN-C.

Only real gripe is the fixed 1400-Hz cutoff low-pass audio filter. I may hotwire around that, if I can find it. Lots of big black boxes crammed inside this monster cabinet.

The tunable audio filter is unique and works well when the old toggle switches are in the mood to make contact. I gave 'em some DeOxit and we'll see how that works out.

Power supply includes a humongous glass ballast tube (line voltage regulator) like those used in early Victor Electrolas but twice as tall. And a shiny white ceramic resistor about 1" diameter and 10" long! These throw off many BTUs of shack warmth, but can be cut out of the circuit if your line voltage is stable.

Some comments and questions and requests:

(1) I think the 2nd RF stage has opened up somewhere -- after a couple hours of operation, I've lost some selectivity, and the RF Trimmer knob no longer has any effect. I have some ideas where to look, but anyone have any ideas? I have the manual set on 35mm film strip, and can sort of read it in my microfiche reader. BTW, in the transition period when the RF stage was starting to fail, the regeneration seemed to get ragged and noisy -- the point between narrow AM and barely-oscillating for CW became very sloppy. But now it's quite fine in that regard.

(2) There are some greenish corrosion stain spots on the front panel (black crinkle finish) and on one dial (the mostly useless VU meter range control). Genuine Navy seawater? I have a lot of chemicals for cleaning stuff up, so what do y'all recommend? Other than these blemishes, the front panel and both cabinets are



in really nice shape.

(3) Anyone collecting serial numbers? My nameplates are intact.

(4) Anyone ever play with the twin RAL-7? That's the HF version, same architecture. What's a two-stage TRF plus regen like at 18 MC? Do I really want to know? Why would the Navy build an HF regen in 1945 (according to the contract no. on the nameplate)? I understand the superiority of regens on VLF, but HF? Well, it would be fun to play with.... 73, mike k w9nrda/ae

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: arc5@ix.netcom.com (David Stinson )  
Subject: Re: RAK-7 VLF Navy RX  
Message-ID: <199602130618.WAA03254@ix2.ix.netcom.com>

Mike Knudsen wrote:

>a sort of slow, sloppy CW around 70 KC.  
>Maybe....VLF hounds can help me ID this stuff once  
>I get the freqs nailed down.  
What you're hearing there is WWVB at 60 KC in  
Ft. Collins, Colorado.  
The carrier is reduced several db for keying and  
the format is a type of Binary Coded Decimal.  
It's an excellent source of frequency calibration  
for VLF listeners, as the freq is even more  
precise than WWV.

73 DE Dave Stinson AB5S/7  
arc5@ix.netcom.com

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: rdkeys@csemail.cropsci.ncsu.edu  
Subject: Re: RAK-7 VLF Navy RX  
Message-ID: <9602131606.AA110835@csemail.cropsci.ncsu.edu>

>

> Only real gripe is the fixed 1400-Hz cutoff low-pass audio filter.  
> I may hotwire around that, if I can find it. Lots of big black  
> boxes crammed inside this monster cabinet.

Consider it a blessing, although it is not wired into the circuit permanently. There should be two switches in the audio section, one for turning on the tunable passband filter and one for turning on the lowpass filter. Then there are high/low tuning range and

switches for the passband tuning. DSP from '36 that puts all other  
``modern'' filters to shame, if you know how to run it.

> Power supply includes a humongous glass ballast tube (line voltage  
> regulator) like those used in early Victor Electrolas but twice as  
> tall. And a shiny white ceramic resistor about 1" diameter and  
> 10" long! These throw off many BTUs of shack warmth, but can be  
> cut out of the circuit if your line voltage is stable.

The ballast is not supposed to be used on the RAK, only the RAL.  
Generally switch it out all the time.

> Some comments and questions and requests:  
> (1) I think the 2nd RF stage has opened up somewhere -- after a  
> couple hours of operation, I've lost some selectivity, and the RF  
> Trimmer knob no longer has any effect. I have some ideas where to  
> look, but anyone have any ideas? I have the manual set on 35mm  
> film strip, and can sort of read it in my microfiche reader.  
> BTW, in the transition period when the RF stage was starting to  
> fail, the regeneration seemed to get ragged and noisy -- the point  
> between narrow AM and barely-oscillating for CW became very  
> sloppy. But now it's quite fine in that regard.

First check the tubes by substitution or a tester.

Check switch contacts on the floating switch plates. They MUST float,  
and not be tightened down or the plates will crack and not make good  
alignment. It helps to rotate the bandswitch 100 times to clean and  
stabilize the contacts. BUT MAKE SURE THE SWITCH TRAVELS FREELY AND  
IS WELL OILED FIRST.

OIL THE HELL OUT OF THE BEARING RACES ON THE SWITCHES AND CAPACITOR.  
Use no. 10 wt motor oil or 3-in-1 works fine. Vaseline is also  
specified. Vaseline is specified on the switch contacts (a trace).

Rarely a resistor goes, and more rare still a capacitor. Usually it is  
the RF switch not floating properly and making good contact. The float  
clearance is something like 0.005in and relatively important.

Check that the bottom cover plate is installed. It MUST be there to  
calibrate properly, although it will align without it (but the calibration  
becomes way off).

> (4) Anyone ever play with the twin RAL-7? That's the HF version,  
> same architecture. What's a two-stage TRF plus regen like at 18 MC?  
> Do I really want to know? Why would the Navy build an HF regen in  
> 1945 (according to the contract no. on the nameplate)? I  
> understand the superiority of regens on VLF, but HF? Well, it

> would be fun to play with.... 73, mike k w9nrda/ae

Almost anything the kenyasiwhooie can hear the RAK/RAL can hear or hear better.

Above 40 meters they can be a bit hairy, but perfectly fine once you get used to them.

It is NOT a single signal receiver so you will pick up heterodynes in both directions from zero beat.

Been using both for 25 years. Use them as the main station receivers in preference to most other receivers on CW. They have heard many a ship/px/wx/distress/tfclist/etc., in their time, and are among the finest cw receivers ever made. Learn how to use them and use them well, and they will render yeoman service for the rest of your life.

If you don't turn up a manual, I will see what I have (RAL/RAK 5 I think). They are all almost identical so any manual will work. The only difference is that the early models had feeder or single wire feed inputs while the later ones had coax feed input.

73/ZUT DE NA4G/Bob

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: Michael.J.Knudsen@att.com  
Subject: Re: RAK-7 VLF Navy RX  
Message-ID: <9602131730.AA11333@bock.ih.att.com>

Thanks Bob for the many useful tidbits on the RAK-7. Unforch, my model has only two toggle switches in the audio section, plus the rotary filter tuner switch. One switch cuts the tunable filter in or out, and the other is hi/lo range for it. A third switch to bypass the lo-pass would be nice, and sounds like yours has one.

I did brave the 14 screws over the tuning condenser, and greased the worm drive and split wheel, and oiled the ball bearings at each end. Made just a little difference. I have not yet battled the two-dozen screws on the bottom, but will. I can see some printing thru a crack about .005" tolerance, so that must be the switch wafers. Time to raid my auto tool box for feeler gauges.

Is there a standard, preferred calibration for the set? Or was each op expected to make up his own for his rig, as with an HRO? My 35mm "manual" has many pages of tables, maybe that's what those are. I need to start making up a log sheet anyway.

My set is complete, with all covers, including the early-'30s style screw-on covers for the coils. The dB meter glass is pushed in so that doesn't work, and the filament VAC meter is out of cal (reads a bit low even when zeroed to the max). Other than that, pretty good set.

My antenna feed is a sort of Stonehenge Coax -- cetner is a banana plug. I just put a cliplead on it from my led-in. Also I got a metal can with a lowpass filter in it for bringing out the audio output along with the power cable; where would that go in a system? With the station control box that I don't have? It might (!) fit inside the RX but I don't see a neat way to mount it, and the Navy would never leave such a thing adrift inside this battleship.

Glad to hear it and its twin are such good sets. Every cap is a metal case oil, so like you said they probably last for ever.

BTW my schematic also shows the low-pass audio filter hard wired in, no extra switch. I guess that was a later refinement, or mine is a later cost-reduction (ha!). Tnx es 73, mike k w9nrd/ae

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: robert fowle <hammarlund@voyager.net>  
Subject: rca tube manuals wanted  
Message-ID: <199602130023.TAA10155@vixa.voyager.net>

good evening;

I would like to find the following:

RCA: RC-28,29,30 tube manuals in nice shape.

if you happen to have an extra, please drop me a note in e-mail.

thanks.

=====]-[->

Robert Fowle  
The HAMMARLUND Historian  
Ph. voice or fax 517-789-6721  
1215 Winifred  
Jackson, Mich. 49202-1946  
E-mail at: hammarlund@voyager.net

HAMMARLUND LITERATURE WANTED

=====]-[->

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: USSAILIS@forum.phast.umass.edu  
Subject: Rockwell/Collins  
Message-ID: <01I155QI2P6Q000JHZ@rfd.oit.umass.edu>

I delt with Rockwell/Collins in Cedar Rapids about two or three years ago. They have a new mil transceiver called a 2000 or something like that. Got all the modern bells and whistles, but no tubes :-(.  
Jim, W1EQ0

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: Withers\_Milton\_0/nsih1\_RICHARDSON/alcatel/US/Telemail/  
alcanet@audopen.aud.alcatel.com  
Subject: Re: Rockwell/Collins  
Message-ID: <H000022901795184@MHS>

For those of you looking for contact information for Rockwell/Collins here is the information that I have:

Collins Avionics & Communications Division  
350 Collins Road NE  
Cedar Rapids, Ia 52498

Business Hours-Weekdays:  
7:30 a.m. - 4:30 p.m. central

Telephone (main oper)....319/395-1000  
CACD Technical Support ..319/395-5804

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As some of you may or may not know, Rockwell sold the Collins Network Transmission Division to Alcatel in 1991. This is the division that manufactures and supports the Collins telecommunications products (I.E. Microwave radios, Fiber Optics and Multiplex).

The address for Alcatel is:

Alcatel Network Systems  
1225 N. Alma Road  
Richardson, Tx. 75081-2206

Business Hours-Weekdays:  
8:00 a.m. - 5:00 p.m. central

ANSI Technical Support ..214/996-7089

I hope the information listed above is of some help.

Regards  
Milton

milton\_o\_withers@aud.alcatel.com

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: Radiomatt@aol.com  
Subject: STILL NEED HELP ON 2 OLDIES SW  
Message-ID: <960213003415\_142765853@mail04.mail.aol.com>

R-1230 made by National; part of Direction Finding setup, I think. Uses  
odometer type tuning dials (hello R-390 fans!), some nuvistors, but mostly  
mini toobs.

Need Power Supply and D/F indicator AND MANUAL.

Siemens SW receiver; Model 445e311a, toons from 1.5 to 30 Mhz in zillions of  
100kHz wide bands, and then a vertical 0-100 odomerter dial tunes up from the  
base freq.

USB/LSB switch, etc. Works a little but need manual. Front panel in English  
so probably sold here or in Canada as 110v

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: MEC <danmec@inet.uni-c.dk>  
Subject: Re: STILL NEED HELP ON 2 OLDIES SW  
Message-ID: <Pine.3.89.9602130716.A23802-0100000@inet.uni-c.dk>

> Siemens SW receiver; Model 445e311a, toons from 1.5 to 30 Mhz in zillions of  
> 100kHz wide bands, and then a vertical 0-100 odomerter dial tunes up from the  
> base freq.  
> USB/LSB switch, etc. Works a little but need manual. Front panel in English  
> so probably sold here or in Canada as 110v

>  
have two of these gems and am ijn the process of copying the manual,  
which I have borrowed. If you are interested in a copy at my cost of  
40 cents US per page, let me know..  
It is a superb receiver !!!!

73 Rag oz8ro

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: haynes@cats.ucsc.edu (Jim Haynes)  
Subject: The Boatanchor To End All Boatanchors  
Message-ID: <199602122323.PAA03502@angus.UCSC.EDU>

Note the celebrations this week of the 50th anniversary of ENIAC, the 18,000 tube boatanchor of a computer. And it's to end all boatanchors in another sense: it ushered in the digital age.

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: Michael.J.Knudsen@att.com  
Subject: Re: Thoriated Tungsten filaments  
Message-ID: <9602121940.AA10522@bock.ih.att.com>

I have actually \*watched\* flakes of cathode flying off a 6X5 on a big Zenith console (10-S-xxx). That's an indirect-heated cathode, not the big filament straps of a 5U4, but probably the same idea.

I've also seen lots of white flaks rattling around inside apparently OK 5U4s and the like. 73, mike k w9nrd/ae

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: tech@cs.athabascau.ca (Richard Loken)  
Subject: TU-10B transmitter tuner  
Message-ID: <m0tm8N0-0018YDC@aupair.cs.athabascau.ca>

I have the above military uner lying about the shack, it is complete (including the identification plate and the tuning data in the plastic window) and dirty but in good cosmetic condition. I got it to murder but it is too good to strip without an inquiry first.

Anybody have a use for one? Oh yes at tell me what it tuned when in service. I would be glad to swap it for an Eico or Heathquit green eye capacitor checker or a say \$10.00 and shipping... Maybe its not worth ten bucks...

Richard Loken VE6BSV, Systems Programmer - VMS : "...underneath those  
Athabasca University : tuques we wear, our heads  
Athabasca, Alberta Canada : are naked!"  
\*\* tech@cs.athabascau.ca \*\* : - Arthur Black

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: arc5@ix.netcom.com (David Stinson )

Subject: Re: TU-10B transmitter tuner  
Message-ID: <199602130627.WAA18995@ix3.ix.netcom.com>

>  
>I have the above military tuner....  
>Anybody have a use for one?  
> Oh yes at tell me what it tuned when in service.  
Richard:

The TU-10B is one of the tuning drawers for the BC-375 WW-II aircraft Liason transmitter. It was common in B-24, B-17 and other large aircraft. I have a BC-375 on the air with its sister BC-348 receiver and would love to give the unit a good home, since I don't have one. It's worth a little more then \$10, however. If it's still available, let me know.

73 DE Dave Stinson AB5S/7  
arc5@ix.netcom.com

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: Terry Burge <terrybu@netman.ENS.TEK.COM>  
Subject: Unusual R-390/R-391/URR etc.  
Message-ID: <9602122129.AA12849@netman.ENS.TEK.COM>

Group,

Thought I might shed a little light on the subject of unusual R-390's and there uses. When I was stationed with the U.S.Army Security Agency in Udorn, Thailand my job was autotune op. In this position we had two receivers, A and B (R-390's). When we received a tip off from the 05H's (morse code copiers) we would find the guy and take a DF shot on him.

The receivers in the outstations (4 or 5) would autotune up to where we set our receiver(s) so they would be approximately on the same frequency (plus or minus a KC or so). Then they would take the DF shot and forward the information back to us in operations. Even back in the 1970/71 days it was amazing how fast we could fix someone.

Of course to do this the receivers had motors in them connected to the tuning mechanism. Not being a receiver tech at the time I don't know how they worked exactly.

>I don't know what the difference between the AN/FLR-7 and the AN/FLR-9  
>is. Perhaps they are just different versions of the same antenna.

If memory serves me correctly the AN/FLR-7 was the smaller 'portable'



version of the doppler DF'ing setup that we used in SE Asia. It had 26 or so verticals in a circle with the shack in the middle where we had our operating positions. R-390's, DF scope, etc. The antennas were sampled at several thousand times a minute and a station's signal formed a half propeller pattern on the screen of the scope showing the direction it was coming from. The whole setup covered a circle of about 100 feet with the antennas only about 20 feet tall. In school at Ft.Devens we were given handouts explaining the parts of the system and they weren't classified so this discription while vague shouldn't be a problem.

The AN/FLR-9 setup as discribed by one of the people on the group was a huge affair. One of them had been in construction in Udorn for over a year when I left in June 1971. There were supposed to be several around the world in Germandy, Phillipines, England and several other places. I never did get to see the inside of one but I did meet some of the guys that went TDY all over the place setting them up and they could tell some stories. They formed a circle about 500 feet in diameter as I recall and had 3 rows of verticals around them plus the inner reflector screen as I recall. The tallest verticals were about 100 feet. Alot of money waisted IF they pulled out of Tailand like we heard later.

Udorn was the best Army base I ever seen with modern airconditioned barracks, paved streets and well maintaned lawns, pool, PX, bowling alley and (after a while) a reasonable mess hall. Course, the night the cobra showed up in the kitchen right in the middle of the mile wide base didn't make anyone feel safer to walk the streets. The Air Force base down the road really sucked compared to the Army base if you can believe that.

Terry  
KI7M  
05D20/30

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: "Barry L. Ornitz" <u856010@eastman.com>  
Subject: RE: Unusual R-391, FLR 7/9 Antennas  
Message-ID: <Pine.ULT.3.91.960212182338.17928B-100000@dua150.kpt.emn.com>

The big concentric antenna arrays used in the FLR 7 and FLR 9 are technically known as Woolenweber Arrays. Their principle of operation is described in Jasik's "Antenna Handbook" for those antenna nuts among us. I have a friend who was in the Army Security Agency in Thailand assigned to one of these sites. He alternately called it a "Flare 9" or "Glare 9". His specialty was the repair of R-390A receivers used at the site.

Evidently the antenna array could be used in several modes. With proper

capacitive coupling to each (amplified) antenna output, a unidirectional pattern could be obtained. A pseudo-Doppler method was also available for more precise direction finding. A large number of receivers could be used simultaneously and the antenna switching system used a (relatively) modern computer system to do the switching and phasing. However, good old R-390A receivers were the preferred receiver for their reliability and minimal phase noise. Constant scanning up and down bands did cause premature wear of the R-390A RF deck "watchmaker's nightmare". My friend said similar sites were located in England, Germany, Turkey, and elsewhere.

Never one to like the radio intercept operators, he called them "ditty-bops". He said it was not uncommon for these poor fellows to go "looney" after an extended shift of monitoring Chinese CW stations.

73, Barry WA4VZQ ornitz@eastman.com

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: Bob Roehrig <broehrig@admin.aurora.edu>  
Subject: RE: Unusual R-391, FLR 7/9 Antennas  
Message-ID: <Pine.ULT.3.91.960212184955.27914A-1000000@admin.aurora.edu>

Doesn't the FCC use Wolenweber (sp?) antennas for their DF'ing? I've called them on several occasions and heard the op do the DF bit over the phone. It sounds like a "whirring" sound, like an electrically steered array of some kind.

E-mail broehrig@admin.aurora.edu

73 de Bob, K9EUI

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: "Dick Dillman" <ddillman@igc.apc.org>  
Subject: RE: Unusual R-391, FLR 7/9 Antennas  
Message-ID: <83904.ddillman@igc.apc.org>

On Mon, 12 Feb 1996 18:50:34 -0600 (CST),  
Bob Roehrig <broehrig@admin.aurora.edu> wrote:

>Doesn't the FCC use Wolenweber (sp?) antennas for their DF'ing? I've  
>called them on several occasions and heard the op do the DF bit over  
>the phone. It sounds like a "whirring" sound, like an electrically  
>steered array of some kind.

They don't at the Livermore monitoring station here in California, that's for sure. It's kind of an unimpressive setup although the remains of some rhombics reminds one of when men were men.

Dick Dillman  
WPE2VT N6VS ex-WA2BJK  
<ddillman@igc.apc.org>  
Collector of Heavy Metal:  
Harleys, Willys and Radios Over 100lbs.

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: Andy Howard WA4KCY <102452.362@compuserve.com>  
Subject: Vintage Web Site Overhauled  
Message-ID: <960212224941\_102452.362\_DHT63-1@CompuServe.COM>

The WA4KCY Vintage Radio Web Site has been overhauled. Check it out. Pictures of vintage equipment needed from other collectors.

Collection of vintage American-made amateur equipment

<http://ourworld.compuserve.com/homepages/sweetbay>

Andy, WA4KCY  
AMI #9

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: Dave <72550.2274@compuserve.com>  
Subject: Wanted: Johnson 6N2 Transmitter  
Message-ID: <960213005632\_72550.2274\_IHD101-1@CompuServe.COM>

Hi all,

Looking for an E.F. Johnson 6N2 six and two meter transmitter.

If anyone has this transmitter for sale please call me at 1-317-497-9410.

73's

Dave Hutchison KW9U

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: buska@aaic.advantest.com (d.buska@advantest.com)  
Subject: WTB: AR40 Rotor Control w/ Manual  
Message-ID: <96021218180369@aaic.advantest.com>

I'm looking for a Model AR40 CDE Rotor Control Box and or manual for same.  
Actually any 5 wire rotor control box made by CDE should work,

Thanks es 73

Don N900  
d.buska@advantest.com

From boatanchors@theporch.com Tue Feb 13 12:26:47 1996  
From: jserocki@wwa.com (joe serocki)  
Subject: WTB: boatanchors for new novices  
Message-ID: <m0tmKfA-001VwKC@sashimi.wwa.com>

I am looking to purchase some boatanchors for school stations and new novices. Nothing fancy, or expensive (why else would I want boatanchors?), but must be functional, and vfo operation is pretty much required.

Let me know whatcha got and whatcha want for it, either at jserocki@wwa.com or at jserocki@allstate.com or at 847-587-2398 anytime.

73, thanks, and the kids than ye.

From boatanchors@theporch.com Tue Feb 13 00:55:33 1996  
From: wx8l@vtc.tacom.army.mil (Sean McCarthy)  
Subject: Zenith T.O. to trade for like...  
Message-ID: <199602122339.SAA00818@vtc.tacom.army.mil>

Hello,

I have a H600L and a 8G005 TransOcianic, both in good condition.

I would like a D7000Y

Can we talk?

Sean McCarthy  
(810)573-9277  
wx8l@vtc.tacom.army.mil